

## **SPECIFICATIONS TABLE OF CONTENTS**

The following Special Project Specifications are attached. Some sections in the Special Project Specifications refer to work in other sections not listed in the Schedule of Items. Work not listed in the Schedule of Items is considered subsidiary to, or is included in payment for other listed pay items in this contract. Items not listed in the Schedule of Items are considered incidental and no additional compensation will be made.

Section 011250 - Measurement And Payment

Section 011900 - Mobilization

Section 013300 - Submittal Procedures

Section 014100 - Quality Control

Section 024100 - Waste Material Disposal

Section 133499 - Refrigerated Box Tree Cooler & Accessories

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SECTION 011250 - MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.1 SUMMARY

- A. Measurement and payment for contract work will be made only for and under those pay items included in the Schedule of Items. All other work, labor, materials, equipment, and incidentals necessary to successfully complete the project will be considered as included in the payment for items shown. This section defines the method of measurements and basis of payment for work items listed in the Schedule of Items.
- B. When more than one class, size, type, thickness, etc. is specified in the Schedule of Items for any pay item, suffixes will be added to the item number to differentiate between the pay items.

1.2 DETERMINATION OF QUANTITIES

- A. The following measurements and calculations shall be used to determine contract quantities for payment.
  - 1. For individual construction items, longitudinal and lateral measurements for area computations shall be made horizontally or corrected to horizontal measurement unless otherwise specified. Measurements for geotextiles, netting and erosion control blankets shall be along slope lines.
  - 2. For excavation or embankment volumes, the average end area method shall be used to compute volumes. However, if in the judgment of the Contracting Officer (CO), the average end area method is impractical, measurement shall be made by volume in hauling vehicles or by other three-dimensional methods.
  - 3. For Structures, they shall be measured according to neat lines shown on the drawings or as altered by the CO, in writing, to fit field conditions.
  - 4. For items that are measured by the linear foot, such as pipe culverts, fencing, guardrail, piping, utilities, and underdrains, measurements shall be made parallel to the base or foundation upon which the structures are placed.
  - 5. For aggregates weighed for payment, the tonnage shall not be adjusted for moisture content, unless otherwise provided for.
  - 6. For standard manufactured items (such as fence, wire, plates, rolled shapes, pipe conduits) identified by gauge, weight, section dimensions, and so forth, such identifications shall be considered the nominal weights or dimensions. Unless controlled by tolerances in cited specifications, manufacturer's tolerances shall be accepted.
- B. Earthwork Tolerances - Adjustments of horizontal or vertical alignment, within the tolerances specified in this contract, or shifts of balance points up to 100 feet shall be

made by the contractor as necessary to produce the designed sections and to balance earthwork. Such adjustments shall not be considered as "Changes."

### 1.3 UNITS OF MEASUREMENT

A. Payment shall be by units defined and determined according to U.S. Standard measure and by the following:

1. Acre: Make longitudinal and transverse measurements for area computations horizontally.
2. 50lb Bag: Measurement will be for the actual number of 50lb bags of standard bentonite grout.
3. 94lb Bag: Measurement will be for the actual number of 94lb bags of standard cement or grout.
4. Cubic Yard (CY): A measurement computed by one of the following methods:
  - a. Excavation, Embankment, or Borrow. The measurement computed by the average end area method from measurements made longitudinally along a centerline or reference line.
  - b. Material in Place or Stockpile. The measurement computed using the dimensions of the in-place material.
  - c. Material in the Delivery Vehicle. The measurement computed using measurements of material in the hauling vehicles at the point of delivery. Vehicles shall be loaded to at least their water level capacity. Leveling of the loads may be required when vehicles arrive at the delivery point.
5. Each (EA): One complete unit, which may consist of one or more parts.
6. Gallons (GAL): The quantity shall be measured by any of the following methods:
  - a. Measured volume in container.
  - b. Metered volume by approved metering system.
  - c. Commercially package volume.
7. Hour (HR): Measurement will be for the actual number of hours (or fraction thereof) ordered by the Contracting Officer and performed by the contractor.
8. Linear Foot (LF): Measurement of work along its length from point-to-point; parallel to the base or foundation. Do not measure overlaps.
9. Lump Sum (LS): One complete unit.
10. Mile: Measured horizontally along the centerline of each roadway, approach, or ramp.
11. Pound (LB): For sacked or packaged material, measurement will be the net weight as packed by the manufacturer.
12. Square Foot (SF): Measured on a plane parallel to the surface being measured.
13. Square Yard (SY): Measured on a plane parallel to the surface being measured.
14. Ton: Measured as a short ton consisting of 2,000 pounds.

### 1.4 METHOD OF MEASUREMENT

- A. One of the following methods of measurement for determining final payment is designated on the Schedule of Items for each pay item:
1. ACTUAL QUANTITIES (AQ) - These quantities are determined from actual measurements of completed work.
  2. CONTRACT QUANTITIES (CQ) - These quantities denote the final number or units to be paid for under the terms of the contract. They are based upon the original design data available prior to advertising the project. Original design data include the preliminary survey information, design assumptions, calculations, drawings, and the presentation in the contract. Changes in the number of units shown in the Schedule of Items may be authorized under any of the following conditions:
    - a. As a result of changes in the work authorized by the CO.
    - b. As a result of the CO determining that errors exist in the original design that cause a pay item quantity to change by 15 percent or more.
    - c. As a result of the Contractor submitting to the CO a written request showing evidence of errors in the original design that cause a pay item quantity to change by 15 percent or more. The evidence must be verifiable and consist of calculations, drawings, or other data that show how the designed quantity is believed to be in error.
  3. LUMP SUM QUANTITIES (LSQ) - These quantities denote one complete unit of work as required by or described in the contract, including necessary materials, equipment, and labor to complete the job. They shall not be measured.
  4. STAKED QUANTITIES (SQ) - These quantities are determined from staked measurements prior to construction.
  5. VEHICLE QUANTITIES (VQ) - These quantities are measured or weighed in hauling vehicles.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION (NOT APPLICABLE)

END OF SECTION 011250

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SECTION 011900 - MOBILIZATION

PART 1 - GENERAL

1.1 SUMMARY

- A. This item is intended to compensate the Contractor for operations including, but not limited to, those necessary for the movement of personnel, equipment, supplies, and incidentals to the project site; for payment of premiums for bonds and insurance for the project; and for any other work and operations which must be performed or costs that must be incurred incident to the initiation of meaningful work at the site and for which payment is not otherwise provided for under the contract.

1.2 MEASUREMENT AND PAYMENT

- A. The measurement shall be lump sum for mobilization. Payment shall be as follows:
  - 1. Bond premiums will be reimbursed after receipt of the evidence of payment.
  - 2. 50% of the lump sum, not to exceed 5% of the original contract amount, will be paid following completion of 5% of the original contract amount not including mobilization and bond premiums.
  - 3. Payment of the remaining portion of the lump sum, up to 10% of the original contract amount, will be paid following completion of 10% of the original contract amount not including mobilization and bond premiums.
  - 4. Any portion of the lump sum in excess of 10% of the original contract amount will be paid after final acceptance.
  - 5. Progress payments for mobilization and preparatory work shall be subject to retainage.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 011900  
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SECTION 013300 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other miscellaneous submittals. See Table 013300-1 for a summary of required submittals.
- B. See other specification section within this package for additional requirements on submittal.

1.2 SUBMITTAL PROCEDURES

- A. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
  - 1. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
    - a. The Contracting Officer (CO) reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- B. Processing Time: Allow enough time for submittal review, including time for re-submittals, as follows. Time for review shall commence on CO's receipt of submittal.
  - 1. Initial Review: Allow 14 days for initial review of each submittal. Allow additional time if processing must be delayed to permit coordination with subsequent submittals. CO will advise Contractor when a submittal being processed must be delayed for coordination.
  - 2. If intermediate submittal is necessary, process it in same manner as initial submittal.
  - 3. Allow 14 days for processing each re-submittal.
  - 4. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing.
- C. Identification: Place a permanent label or title block on each submittal for identification.
  - 1. Indicate name of firm or entity that prepared each submittal on label or title block.
  - 2. Provide a space on label or beside title block to record Contractor's review and approval markings and action taken by CO.
  - 3. Include the following information on label for processing and recording action taken:
    - a. Project name.
    - b. Date.
    - c. Name and address of Contractor.

- d. Name of manufacturer.
  - e. Unique identifier, including revision number.
  - f. Number and title of appropriate Specification Section.
  - g. Drawing number and detail references, as appropriate.
  - h. If more than one item is shown on submittal sheet, identify item.
- D. Deviations: Highlight, encircle, or otherwise identify deviations from the Contract Documents on submittals.
  - E. Additional Copies: Unless additional copies are required for final submittal, and unless CO observes noncompliance with provisions of the Contract Documents, initial submittal may serve as final submittal.
  - F. Use for Construction: Use only final submittals with mark indicating action taken by CO in connection with construction.

### 1.3 MEASUREMENT AND PAYMENT

- A. No separate measurement and/or payment will be made for this section. Payment shall be included with work shown in the Schedule of Items.

## PART 2 - PRODUCTS

### 2.1 ACTION SUBMITTALS – (Submittals requiring CO approval)

- A. General: Prepare and submit Action Submittals required by individual Specification Sections.
  - 1. Number of Copies: Submit three copies of each submittal, unless otherwise indicated. CO will return two copies. Mark up and retain one returned copy as a Project Record Document.
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
  - 1. If information must be specially prepared for submittal because standard printed data are not suitable for use, submit as Shop Drawings, not as Product Data.
  - 2. Mark each copy of each submittal to show which products and options are applicable.
  - 3. Include the following information, as applicable:
    - a. Manufacturer's written recommendations.
    - b. Manufacturer's product specifications.
    - c. Manufacturer's installation instructions.
    - d. Manufacturer's catalog cuts.
    - e. Wiring diagrams showing factory-installed wiring.
    - f. Compliance with recognized trade association standards.
    - g. Compliance with recognized testing agency standards.

- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
1. Preparation: Include the following information, as applicable:
    - a. Dimensions.
    - b. Identification of products.
    - c. Fabrication and installation drawings.
    - d. Roughing-in and setting diagrams.
    - e. Wiring diagrams showing field-installed wiring, including power, signal, and control wiring.
    - f. Notation of dimensions established by field measurement.
  2. Wiring Diagrams: Differentiate between manufacturer-installed and field-installed wiring.
- D. Contractor's Construction Schedule: The contractor shall submit a Construction Schedule, for approval by CO, in accordance with the contract provisions within 10 days of receipt of the Notice to Proceed, or before the commencement of work.
- E. Samples: Prepare physical units of materials or products, including the following:
1. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.

## 2.2 INFORMATIONAL SUBMITTALS – (Submittals NOT requiring CO approval)

- A. General: Prepare and submit Informational Submittals required by other Specification Sections.
1. Number of Copies: Submit three copies of each submittal, unless otherwise indicated. CO will not return copies.
  2. Certificates and Certifications: Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
  3. Test and Inspection Reports: Comply with requirements in Section 014100 "Quality Control."
- B. Material Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements.
- C. Maintenance Data: Prepare written and graphic instructions and procedures for operation and normal maintenance of products and equipment.
- D. Manufacturer's Instructions: Prepare written or published information that documents manufacturer's recommendations, guidelines, and procedures for installing or operating a product or equipment. Include name of product and name, address, and telephone number of manufacturer.

## PART 3 - EXECUTION

### 3.1 GENERAL

- A. Review each submittal and check for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to CO.
- B. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.
- C. CO will not review submittals that do not bear Contractor's approval stamp and will return them without action.
- D. Submittals not required by the Contract Documents will not be reviewed and may be discarded.
- E. Substitutions – Whenever materials, products, and equipment are listed by name or brand in the specifications and/or on the drawings, it is used as a measure of quality, utility, or standard. If the Contractor prefers to use any other brand or manufacturer of same quality, appearance and utility to that specified, he shall request substitution as provided below, not less than 30 days before the planned installation of the item. The Contracting Officer will approve or disapprove the request for substitution.
- F. Requests for substitutions will only be considered if contractor submits the following:
  - 1. Complete technical data including drawings, complete performance specifications, test data, samples and performance tests of the article proposed for substitution. Submit additional information if required by Contracting Officer. All items in the above information shall be circled, tagged, or marked in some way to indicate all deviations or differences which the proposed item differs from the originally specified item.
  - 2. Similar data as above for item originally specified. All items shall be marked to identify where/how the proposed substitution will differ.
  - 3. A statement by the Contractor that the proposed substitution is in full compliance with the contract documents, applicable codes, and laws.
  - 4. The Contractor shall be responsible for any effect upon related work in the project for any substitution and shall pay any additional costs generated by any substitutions.

- 3.2 SUBMITTAL SCHEDULE – Submittals shall be made as required by and called for in the drawings and specifications. The following table is a summary of the required submittals for the project - the table is to assist the Contractor and may not be all inclusive – additional submittals may be required by specific specifications:

TABLE 013000-1

Spec. Section	Section Title	Subsection	Required Submittal
014100	Quality Control	1.2 B	Contractor quality control plan
014100	Quality Control	1.2 C	Defective work/Corrective action



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SECTION 014100 - QUALITY CONTROL

PART 1 - GENERAL

1.1 DESCRIPTION

- A. The work of this section consists of preparing and executing a quality control program.
- B. This section includes administrative and procedural requirements for quality-control services.
- C. Quality-control services include inspections, tests, and related actions, including reports performed by Contractor, by independent agencies, and by governing authorities. They do not include contract enforcement activities performed by the Contracting Officer.
- D. Testing services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with Contract Document requirements.
- E. Requirements of this section relate to customized fabrication and installation procedures, not production of standard products.
  - 1. Specific quality-control requirements for individual construction activities are specified in the sections that specify those activities. Requirements in those sections may also cover production of standard products.
  - 2. Specified inspections, tests, and related actions do not limit Contractor's quality-control procedures that facilitate compliance with Contract Document requirements.
  - 3. Requirements for Contractor to provide quality-control services required by the Contracting Officer, or authorities having jurisdiction are not limited by provisions of this section.

1.2 SUBMITTALS

- A. As specified in specification 013300.
- B. Quality Control Plan:
  - 1. At the time of the preconstruction conference, submit for approval a written Contractor Quality Control (CQC) Plan.
  - 2. If the CQC Plan requires any revisions or corrections, the Contractor shall resubmit the plan within 10 days.
  - 3. The Government reserves the right to require changes in the CQC Plan during the contract period as necessary to obtain the quality specified.
  - 4. No change in the approved CQC Plan may be made without written concurrence by the Contracting Officer.
  - 5. The CQC Plan shall be a comprehensive document that addresses every aspect of the Contractor's activity in support of quality finished products. Each aspect of quality

control addressed by the contract documents shall be addressed. Mandatory items of the CQC Plan include, but are not limited to the following:

- a. A statement of the Contractor's quality control policy.
  - b. A list of personnel responsible for quality control and assigned duties. Include each person's qualifications.
  - c. A copy of a letter of direction to the Contractor's Quality Control Supervisor outlining assigned duties.
  - d. Methods of performing, documenting, and enforcing quality control of all work.
  - e. Methods of monitoring and controlling environmental pollution and contamination as required by regulations and laws.
  - f. Outline showing each Definable Feature of Work (DFW) (identified by specification section) describing the quality control activities that take place at each phase for each DFW.
  - g. Detailed description of the mechanisms to be used to track deficient work, notify responsible parties, ensure correction, and provide verification. Contractor shall maintain a log of defective work/corrective actions and shall provide a copy of new log entries to the Contracting Officer as deficiencies are identified. Provide a sample of the log.
  - h. Contractor's program of quality control for items fabricated off-site.
  - i. Detailed description of how record documents will be identified, collected, organized, and retained during the course of the project.
- C. Defective work/corrective action logs.
- D. Off-Site Inspection Reports: Submit prior to shipment.
- E. As-Built Drawings
- F. Permits, Licenses, and Certificates
- G. If the CQC plan is not submitted as specified, the Contracting Officer may retain all payments until such time a plan is approved and implemented.

### 1.3 QUALITY ASSURANCE

#### A. General:

1. Inspect and test all work often enough to ensure that the quality of materials, workmanship, construction, finish, and functional performance is in compliance with applicable specifications and drawings.
2. Test reports shall be completed by person performing the test.
3. The Contracting Officer may designate locations of tests.

#### B. Quality Control Staff:

1. The Contractor's Quality Control Supervisor may also perform the duties of Project Superintendent.
2. The Contractor's designated Quality Control Supervisor shall be on the project site whenever contract work is in progress.

3. The Contractor's job supervisory staff may be used to assist the Quality Control Supervisor, supplemented as necessary by additional certified testing technicians.

#### 1.4 MEASUREMENT AND PAYMENT

- A. No separate payment will be made for the work included under this section; rather payment shall be considered to be included in the items of work listed in the Schedule of Items.

#### PART 2 - PRODUCTS (Not Applicable)

#### PART 3 - EXECUTION

##### 3.1 OFF-SITE CONTROL

- A. Items that are fabricated or assembled off-site shall be inspected for quality control at the place of fabrication.

##### 3.2 ON-SITE CONTROL

- A. Notification:

1. Notify the Contracting Officer at least 48 hours in advance of the preparatory phase meeting.
2. Notify the Contracting Officer at least 24 hours in advance of the initial and follow-up phases.

- B. Preparatory Phase: Perform before beginning each feature of work.

1. Review control submittal requirements with personnel directly responsible for the quality control work. As a minimum, the Contractor's Quality Control Supervisor and the foreman responsible for the feature of work shall be in attendance.
2. Review all applicable specification sections and drawings related to the feature of work.
3. Ensure that copies of all referenced standards related to sampling, testing, and execution for the feature of work are available on site.
4. Ensure that provisions have been made for field control testing.
5. Examine the work area to ensure that all preliminary work has been completed.
6. Verify all field dimensions and advise the Contracting Officer of discrepancies with contract documents.
7. Ensure that necessary equipment and materials are at the project site and that they comply with approved shop drawings and submittals.
8. Review the Site Specific Health and Safety Plan. Note the hazards associated with the subject DFW, and discuss safety provisions. Identify any hazards that were overlooked in preparation of the SSHSP. Arrange for necessary safety equipment, controls, or monitoring.
9. Prepare a report on all preparatory phase activities and discussions. Attach report to Contractor's Quality Control Daily Report.

- C. Initial Phase:

1. As soon as work begins, inspect and test a representative portion of a particular feature of work for quality of workmanship.
  2. Review control-testing procedures to ensure compliance with contract requirements.
  3. Review use of proper safety materials and procedures.
  4. Prepare a report on all initial phase activities and discussions. Attach report to Contractor's Quality Control Daily Report. Exact location of initial phase shall be indicated for future reference and comparison with follow-up phases.
- D. Follow-Up Phase: Inspect and test as work progresses to ensure compliance with contract requirements until completion of work.
- E. Additional Preparatory and Initial Phases: Additional preparatory and initial phases may be required on the same feature of work for the following reasons:
1. Quality of on-going work is unacceptable.
  2. Changes occur in the applicable quality control staff, on-site production supervision, or work crew.
  3. Work on a particular feature of work is resumed after a substantial period of inactivity.

### 3.3 DOCUMENTATION

- A. Maintain Daily Test Report Information Sheets of quality control activities and tests.
- B. Daily Test Reports may not be substituted for other written reports required under clauses of the contract, such as Disputes, Differing Site Conditions, or Changes.
- C. Maintain itemized documentation of materials that have arrived on-site and provide for review when requested by the Contracting Officer. Review and verification will be required to process payment requests.
- D. Record Documents.
- E. Defective work/corrective action log shall be maintained daily and copies provided to the Contracting Officer at a minimum weekly, or as requested by the Contracting Officer.

### 3.4 PERMITS, LICENSES, AND CERTIFICATES

- A. For Contracting Officer's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations relevant to the on performance of the work.

### 3.5 AS-BUILT DRAWINGS

- A. The Contractor shall maintain a set of the contract drawings depicting as-built conditions. These drawings shall be maintained in a current condition and shall be available for review. All variations from the original contract drawings shall be indicated in red on the drawings. Upon completion of the contract work, as-built drawings shall be submitted to the Contracting Officer.

### 3.6 ENFORCEMENT

- A. The Contractor shall stop work on any item or feature pending satisfactory correction of any deficiency noted by the quality control staff or the Contracting Officer.

### 3.7 REPAIR AND PROTECTION

- A. General: Upon completion of inspection, testing, sample taking and similar services, repair damaged construction and restore substrates and finishes.
- B. Protect construction exposed by or for quality-control service activities, and protect repaired construction.
- C. Repair and protection is Contractor's responsibility, regardless of the assignment of responsibility for inspection, testing, or similar services.

END OF SECTION 014100

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SECTION 024100 - WASTE MATERIAL DISPOSAL

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes the loading, handling, hauling, and disposal of construction debris.

1.2 MEASUREMENT AND PAYMENT

- A. There will be no separate measurement or payment for work in this Section. Waste material disposal is considered incidental to other items of work shown in the Schedule of Items.

PART 2 - PRODUCTS – NOT APPLICABLE

PART 3 - EXECUTION

3.1 WASTE MATERIAL TO BE REMOVED

- A. All demolition materials excluding aluminum roofing and components, plus all excess excavation, garbage, and other refuse generated by the project work shall be hauled to a disposal area.
- B. If instructed by the Contracting Officer, neatly stack old weather roof aluminum components at the location designated by the Contracting Officer for recycling.

3.2 DISPOSAL SITE

- A. All waste material not designated for salvage shall be removed from the project site and legally disposed of off Government property in an approved landfill.
  - 1. The contractor is responsible for all costs and permits associated with landfill disposal.
  - 2. The Government is not responsible for waste material upon its departure from the project site.

END OF SECTION 024100  
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SECTION 133499 - REFRIGERATED BOX TREE COOLER & ACCESSORIES

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes installation of specified components of Walk-In Refrigerated Box structures for use as tree coolers. Specified components for this project include Insulated metal skin roof/ceiling panels, weather roofs, and associated components.

1.2 REFERENCED SPECIFICATIONS

- A. The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only. The publications can be accessed at:

Publications: Bally Specification Guide (also known as Walk-In Specifications)  
Bally Walk-In Installation Manual  
Bally Standing Seam Aluminum Roof Installation

Source: [www.ballyrefboxes.com](http://www.ballyrefboxes.com)

1.3 MEASUREMENT AND PAYMENT

- A. Installation of Insulated roof/ceiling panels and Aluminum Weather Roof components shall be a single lump sum item. Removal and disposal of the old weather roof and roof/ceiling panels, and removal/salvage for re-use of existing electrical and refrigeration units shall not be measured for direct payment; that work is incidental to the installation of the new roof/ceiling panels and new weather roof.
- B. Payments shall be measured and paid for in accordance with the provisions of Section 010250 Measurement and Payment for each Pay Item shown in the Schedule of Items.

PART 2 - PRODUCTS

2.1 INSULATED ROOF/CEILING PANELS

- A. Insulated roof/ceiling panels shall be metal skin expanded urethane foam panels as manufactured by Bally Refrigerated Box, Inc. and fabricated as specified in the Bally Specification Guide referenced in Subsection 1.2. Roof/ceiling panels shall be 6-inches thick, with lengths and widths as shown in the Schedule of Items and as SHOWN ON THE DRAWINGS. Contractor is advised to verify actual dimensions of roof/ceiling panels before starting installation.

2.2 CONNECTOR HARDWARE

- A. Insulated roof/ceiling panels shall be fabricated with Bally Speed-Lok diaphragmatic joining devices as specified in the Bally Specifications Guide referenced in Subsection 1.2 for mating up with the existing wall panels of the tree cooler refrigerated box structure at the project site.

## 2.3 ALUMINUM WEATHER ROOF

- A. Aluminum weather roof shall be a standing-seam roof with embossed stucco finish fabricated as specified in the Bally Specification Guide referenced in Subsection 1.2.

## PART 3 - EXECUTION

### 3.1 REMOVAL OF EXISTING WEATHER ROOF AND ROOF/CEILING PANELS

- A. Advise Contracting Officer in advance if electrical and/or refrigeration equipment needs to be disconnected/removed prior to beginning work on the roof repair. Notify Contracting Officer a minimum of 48 hours in advance of beginning preparatory work on site for roof removal. Disconnect any existing electrical and refrigeration equipment not previously removed from the roof/ceiling panels in a manner that prevents damage to the equipment being removed, and set equipment aside for re-installation. Disconnect roof/ceiling panels from intermediate Steel support beams.
- B. Remove existing aluminum weather roof and existing roof/ceiling panels from structure in a manner that does not damage the wall panels of the existing structure. Separate aluminum roof components from other removed materials for possible recycling of the aluminum.

### 3.2 ROOF/CEILING PANELS AND WEATHER ROOF INSTALLATIONS

- A. Install new roof/ceiling panels per the manufacturer's instructions in the Bally Walk-In Installation Manual and Bally Specification Guide, as referenced in Subsection 1.2. Seal joints between panels as recommended by manufacturer.
- B. Once Roof/Ceiling panels are installed and any joint sealing is completed, install the standing seam aluminum roof onto the structure in conformance with the Bally Standing Seam Aluminum Roof Installation Manual.

### 3.3 EXISTING EQUIPMENT RE-INSTALLATION

- A. After roof installation is complete, reinstall electrical and refrigeration equipment that was disconnected and removed in order to install the new roof. Install support brackets and/or other accessories for electrical or refrigeration equipment if installation of electrical and/or refrigeration equipment requires a licensed or certified installer.

### 3.4 SITE CLEANUP

- A. Clean site up after roof repairs and associated work is complete. Dispose of construction trash, debris, and old roof/ceiling panels in accordance with Section 024100.
- B. If instructed by the Contracting Officer, separate aluminum roofing components from other trash/debris, and stack aluminum in a neat pile at the location designated by the Contracting Officer for recycling.

END OF SECTION 133499

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